

IT8000E

Systemtec
Discover smart weighing



W&M Approved Weighing Terminal
For Challenging Weighing And Filling Applications

IT8000E – Freely Programmable Industrial Weighing Terminal

Stainless steel housing IP69K

Suitable for harsh environment weighing locations. With mounting brackets for desk-top or wall-mount installation. Integrated power supply unit, sealed cable glands for all cable connections.

Bright color TFT display

With wide viewing angle, large weight display and 4 to 8 input lines.



Simple and fast operation

With integrated alphanumeric keyboard, function keys and programmable softkeys, optional full-size PC keyboard (cable or Bluetooth).

Stationary or mobile use

With integrated 110–240 V AC power supply unit or via external 12 / 24 V DC battery.

Universal use

The W&M approved IT8000E is designed for demanding industrial applications in the chemical and pharmaceutical industry, in the food industry and in many other sectors of industry. The industrial design with the powerful modular hardware and the concept of free programmability make the IT8000E the ideal weighing terminal for standard or application-specific solutions, e.g. for:

- Shipping and receiving
- Filling and batching systems
- Totalizing bulkweighers
- Checkweighers
- Vehicle / axle weighing
- Mobile data capture systems.

Weighing electronics

1 or 2 internal and up to 6 external scale interfaces possible. Adjustable update rate with up to 800 updates / second. High noise immunity of min. 10 V/m against radio frequency interference. W&M approved resolution of up to 6,000 d with max. 80 % preload. Calibration is possible as single or multiple-range (e.g. 3 x 3,000 d) and as multi-interval scale.

Internal data archive for the storage of up to 120,000 weighing transactions.

Modular concept

The modular design provides for a variety of configurations and options, such as:

- Enclosures for wall-mount, desk-top or panel-mount installation or as blackbox
- DC or AC power supply
- Connection of scales with analog or digital force transducers
- 10/100 Mbit Ethernet interface with integrated web server, WLAN as option
- Integrated USB 2.0 host interface for printer, scanner and USB stick
- Up to 4 serial interfaces, RS232, RS485, RS422, 20mA CL selectable
- Flexible I/O concept for up to 64 inputs and outputs
- Fieldbus interfaces Ethernet/IP, Profibus DP, Profinet or Modbus TCP
- Analog I/Os, etc.

This ensures that the optimal system configuration can be chosen, for stationary as well as mobile use.

Free programmability

Standard programs can be adapted to the requirements of specific applications.

New programs can be designed and tested in a very simple way on a PC with the RTC program development environment.

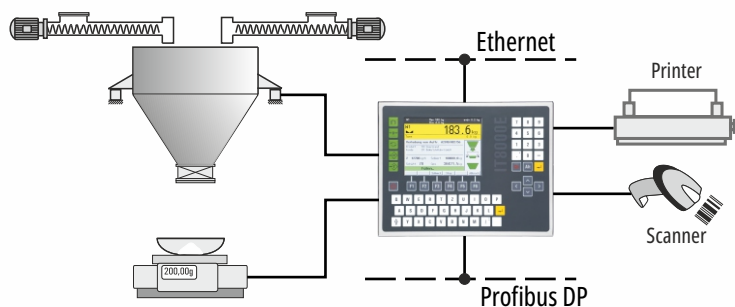
Simple integration

The Linux based operating system with the integrated web server provides the ideal functionality for the integration of the IT8000E into local area networks.

WLAN communication and remote access via internet are also possible.

IT8000E – Standard Programs (Examples)

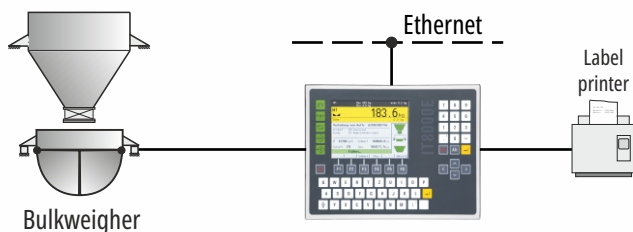
BATCH



Automatic and manual batching system

With up to 4 scales, management of raw materials and recipes, fast and accurate multi-component two-speed batching, with preact optimization, or manual batching with bargraph display and indication of remaining quantity, control of process steps (via I/Os or Profibus DP), printing of batch protocol, material statistics, optional download of recipes over network, storage of batch results in the network.

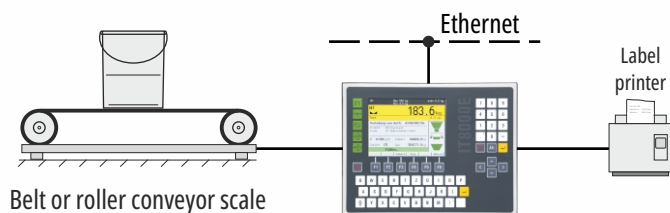
BULK



Bulkweighing controller

For shipping and receiving of bulk material via trucks, freight cars or ships, with product files and control of silos, remote control possible via fieldbus (e.g. Profibus DP).

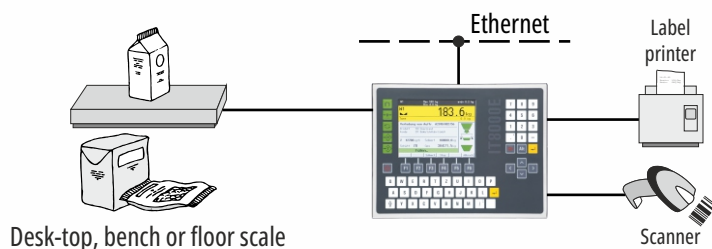
CHECK



Checkweighing scale

Fast capturing of weights from scales with belt or roller conveyors, in continuous or start/stop operation, classification of test objects in 5 tolerance zones, control of rejecters or pushers possible, optional connection to printer for price labeling, with product and statistics file.

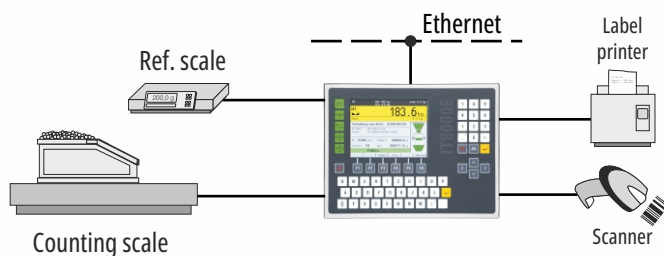
SQC



Sample scale in compliance with the Regulations For Prepackaged Goods

Capturing and printout of statistical data for 250 products on 20 production lines, check by weight or volume, with entry of additional data.

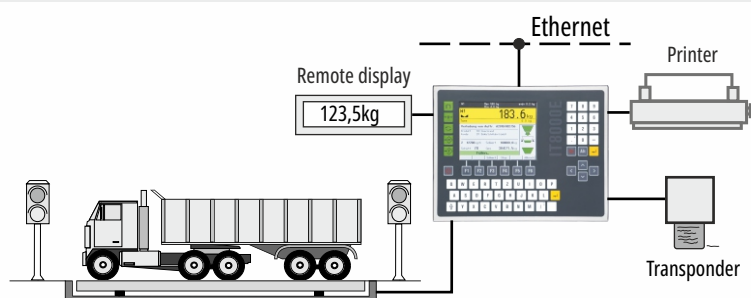
BASIC/COUNT



Parts counting terminal

Capturing of piece weight via reference scale, parts counting in weigh-in or weigh-out mode, bargraph display, configurable printout and data transmission, with article file, item counter, memory for totals, automatic taring, plus/minus check and many more functions.

TRUCK/ONLINE



W&M approved vehicle scale

First, second and single-pass weighing, file management for address and product data, internal W&M approved data archive, configurable print format, switching / summing function for platforms, optional connection of transponder card readers, remote displays, traffic lights and full-size PC keyboard.

IT8000E – Technical Data

Weighing electronics

Connection to scales with analog strain gauge load cells, entry impedance 43 Ohm–3.3 kOhm (e.g. suitable for 8 x 350 Ohm load cells), or via zener barriers, entry impedance 87.5 Ohm–3.3 kOhm (e.g. suitable for 4 x 350 Ohm load cells), W&M approved resolution of up to 6,000 d at a max. of 80 % preload, internal resolution 524,000 d, update rate selectable 50–800 updates / second, smallest load cell signal 0.33 μ V/e. Optional switching and summing function. Option: connection of scale platforms with digital force transducers. Option: up to 6 external scale interfaces via ADCBox.

Calibration

Setup as single or multiple-range scale with 1, 2 or 3 ranges or as multi-interval scale. Calibration with test weights or through entry of rated output of load cell(s), option for the linearization of the load curve with up to 6 linearization points. Option to connect incline switch.

Electrical connection

110 (–15 %) to 240 (+10 %) V AC, 50/60 Hz via integrated power supply unit, option: 12–30 V DC, power consumption max. 20 VA.

Operating temperature

–10 °C (+14 °F) to +40 °C (+104 °F), max. 95 % relative humidity, non-condensing.

Display and keyboard

Bright, high-contrast 5.7" color TFT display, 320 x 240 pixel, with wide viewing angle, large weight display and 4 to 8 input lines. Programmable softkeys, alphanumeric keyboard, function keys for zero setting and taring, plus application-specific function keys, connection of optional full-size keyboard via USB (cable or Bluetooth).

Serial interfaces

Up to 4 interfaces, selectable RS232, 20mA CL (passive), RS422 or RS485 for printer, precision scales, remote displays, other peripheral devices and host communication.

Parallel and analog I/Os

Up to 8 internal optoisolated inputs and outputs, 24 V DC, or external relay / transistor module (64 inputs, 64 outputs max.). Internal 15-bit analog output, external module for up to 4 analog inputs / outputs as option.

Fieldbus interfaces

Ethernet/IP, Profibus DP 12 Mbit, Profinet or Modbus TCP.

Ethernet interface

10/100 Mbit Ethernet interface with integrated web server, WLAN as option.

USB

USB 2.0 host interface with optional IP67 connector for PC keyboard, scanner or USB stick.

Security

Power-fail-safe storage of data, password protection, battery-backed real-time clock, remote diagnosis over Ethernet / Internet possible.

CPU / operating system

32-bit ARM processor, 266 MHz, 1.5 MB data memory, expandable. Linux based realtime multitasking operating system.

Free programmability

Comprehensive, PC-based program development and test environment. Programming with RTC *WIN* in 'C' in compliance with WELMEC software guidelines. Complete software development and test / simulation possible on PC.

Options

RTC *WIN*

IT8000E programming environment.

PC COM+

Active X component for the communication with PC programs.

Ex2/22 version

For installation in Ex zones 2 and 22.

Construction/options:

Desk/wall version



- Stainless steel housing, IP69K, NEMA 4X
- For desk-top or wall-mount installation
- Dimension W x H x D: 330 x 239 x 134 mm (13.0" x 9.4" x 5.3")

Panel-mount version



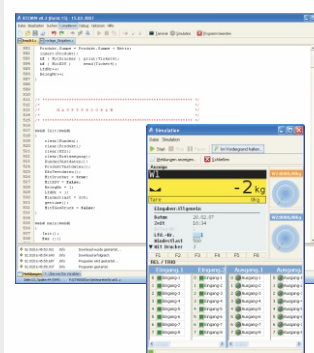
- Stainless steel housing fascia plate protected to IP69K, NEMA 4X
- Panel-mount installation
- Dimension W x H x D: 285 x 224 x 69 mm (11.2" x 8.8" x 2.7")
- Cutout in panel: 268 x 207 mm (10.6" x 8.1")

WLAN



- Option: WLX module to connect to WLAN networks (802.11b/g)
- Secure encryption selectable

RTC *WIN*



Directives: 2014/30/EU, 2014/31/EU, 2014/32/EU, 2014/35/EU

Standards: EN 45501, OIML R 76-1, EN 61000-6-2, EN 61000-6-3, NAMUR NE21, EN 62368-1, OIML R 51, OIML R 61, OIML R 107



EU Type-examination Certificate as non-automatic weighing instrument, AGFI, checkweigher, automatic catchweighing instrument, weigh labeler, weigh-price labeler, discontinuous totalizer



NTEP approval as indicating element



ETL certified in accordance with UL 62368-1 and CSA C22.2 No. 62368-1



EMI compliance with FCC Part 15



Measurement Canada: Approval as indicating element



Russia: Approval as indicating element

EtherNet/IP

PROFINET PROFI-BUS

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Sales and service

Subject to change without notice

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